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ABSTRACT

The multiplicity of variables describing the financial conditions of postsecondary institutions makes it difficult to assess changes in higher education finance from year to year and to find the relationship between these finance variables and average faculty salaries. This study sought to determine if a small number of factors could be derived to describe the financial conditions of postsecondary institutions in meaningful and understandable terms, and given the factors, to produce a linear model that predicts average salaries with acceptable precision. Data from the Integrated Postsecondary Education Data System (IPEDS) were manipulated using factor analysis and regression analysis procedures. Factor analysis reduced the 82 finance variables to a set of 10 factors that can describe the financial condition of postsecondary institutions with greater parsimony and measurable precision. The prediction of institutional salary averages using finance factors as predictors was found to have good implications for faculty groups. Attached to the paper are a data collection form for IPEDS, the rotated factor pattern, a list of variables with high loadings on the 10 factors, and sample budget analysis reports. (JDD)

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Factor Scores From Higher Education Finance Variables as Indicators of Salary

By

Deagelia M. Pena

Presented at the
American Educational Research Association
Annual Conference
New Orleans, Louisiana

April 5, 1994

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The financial crisis in higher education has spurred interest in budget analysis. The set of budget analysis reports (white attachment) helps in the understanding of the financial conditions of higher education institutions. For instance, a comparison among peer institutions (as in the attachment) may include revenue sources, such as tuition fees, government appropriations, grants and contracts, endowment income, sales and services, etc. On the expenditure side, there are functions such as instruction, research, public services, institutional support, operation and maintenance of plant, scholarships and fellowships, mandatory transfers, etc. All these aforementioned financial items have three facets: Current funds revenues as well as expenditures have dollar amounts expressed as *unrestricted, restricted* or *total*.

Each one of the financial activities shown in the reports contributes to fiscal decisions that may have adverse effects on faculty and staff such as cutting programs, freezing salaries or laying off faculty in times of financial crisis. However, it is not easy to conceptualize a clear description of an institution's, or a group of institutions' financial status, nor is it easy to formulate a systematic relationship among the various items in the tables from these reports.

Related Studies

In studies of faculty salaries, generally, the unit of observation is the individual faculty member. The most common method is regression analysis that focuses on salary equities, and prediction of faculty salaries. One of the studies reviewed did a factor analysis of institutional variables. Batsche[1] factor analyzed 27 institutional variables to obtain a smaller set of closely related variables. She obtained factor scores for each of 1,126 institutions of higher education. She performed a cluster analysis of factor scores to explore potential groupings of institutions. The variables selected were those descriptive of the nature and "comprehensiveness" of the institution's academic program, the size of the institution, the research emphasis of the institution, the status of faculty, and the selectivity of student admissions. The raw data for salary and compensation and the salary and compensation data adjusted for the cost of living were used in two separate runs. The author found five factors accounting for 75% of the total variance.

Leslie[2] examined the impact of faculty unionization on faculty compensation, research contract revenues, student tuition and fees, and other financial considerations. The study uses multiple regression models to analyze the net impact of collective bargaining on a sample of over 100 union and nonunion institutions. Leslie found that, holding all factors constant, average faculty compensation in unionized institutions during 1974-75 was about $1,291 more than in non unionized institutions.

The Problem

The multiplicity of variables describing the financial conditions of post secondary institutions in the nation makes it difficult to assess changes in higher education finance from year to year. To

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[1] Batsche,Catherine N. Salary and Compensation in Higher Education: A Cluster Analytic Approach,, Department of Educational Administration and Foundations, College of Education, Illinois State University, March 1981, 48p.

[2] Leslie, Larry L. and Hu, Teh-wei,The Financial Implications of Collective Bargaining in Higher Education,The Pensylfvania State University. Center for the Study of Higher Education,University Park, Pennsylvania, September, 1977, 40p.

assess the impact of the financial status of a given institution on salary, the second problem would be finding the relationships between these finance variables and average faculty salaries.

There are 80 or more variables associated with finance data consisting of revenues and expenditures; the number of variables depends on the institutions selected, e.g., selection by type (AA, BA, BA+, or Doctoral) and/or control (private or public). A factor analysis of these variables would achieve parsimony of descriptors of financial conditions in higher education. Generating factors and using these factors to estimate average salaries is an initial step. Succeeding phases of the study will seek alternative models for a better fit if this is necessary, and will determine the validity of the resulting model. The result is a procedure that will resolve the problem of assessing changes in the financial conditions of higher education institutions and of projecting average salaries from these financial conditions.

This initial study attempts to answer two questions:

First, can we derive a small number of factors from the 80 or more revenues and expenditure variables to describe the financial conditions of post secondary institutions in meaningful and understandable terms?

Second, given the factors, what is the linear model that predicts average salaries with acceptable precision, using institutional factors as predictors?

The Data

The National Center for Education Statistics' (NCES) Integrated Post secondary Education Data System (IPEDS) conducts an annual Finance Survey of post secondary education institutions nationwide. The primary purpose of the Finance Survey is "*to collect basic data to describe the financial condition of post secondary education in the nation; to monitor changes in post secondary education finance; and to promote research involving institutional financial resources and expenditures.*"

This study makes use of the data from IPEDS: Part A -- Current Funds Revenues by Source, Part B -- Current Funds Expenditures by Function, number of full time equivalent students (FTE), and average salaries of faculty on nine-, or ten-month contracts, of 842 community colleges. The data were for the academic year 1990-91. The unit of observation is the institution. Below are the items in Part A and Part B of the Finance survey:

Part A: Current Funds Revenues by Source:

- Tuition and fees
- Government appropriations
  - Federal/State/Local
- Government grants and contracts
  - Federal/State/Local
- Private gifts, grants, and contracts
- Endowment income

Sales and services of educational activities
Auxiliary enterprises
Hospitals
Other sources
Independent operations
Total Current funds revenues

Part B: Current Funds Expenditures by Function

Educational and General: (E & G):
Instruction
Research
Public services
Academic support
Student services
Institutional Support
Operation and maintenance of plant
Scholarships and fellowsships
Mandatory Transfers
Non mandatory transfers
TOTAL E & G EXPENDITURES AND TRANSFERS
Auxiliary enterprises
Hospitals
Independent Operations
TOTAL CURRENT FUNDS EXPENDITURES AND TRANSFERS

The gray attachment is the data collection form for IPEDS Part A and Part B. The attachment shows that each cell is coded by a letter (A or B) followed by 5 digits indicating the year (91), the item row number (e.g.01) and a column number (1, 2, or 3) indicating dollar amounts respectively for unrestricted, restricted or total revenues(A) or expenditures(B). Eighty two of the 94 variables in Parts A and B were retained for community colleges. There were no data for some items such as hospital expenditures.

Methodology

Factor Analysis. Revenue and expenditure variables provide an exhaustive description of the financial picture of an institution; however factor analysis can provide an equally exhaustive description with fewer descriptors (factors), while retaining the relative contribution of each finance variable to these factors.

A principal objective of factor analysis is to attain a parsimonious description of observed data (Harman, p.5).[3]

[3]Hartman, Harry H., Modern Factor Analysis, Third Edition, Revised, The University of Chicago Press, Chicago and London, 1976.

The basic factor analysis model may be put in the form:

$$z_j = a_{j1}F_1 + a_{j2}F_2 + \ldots + a_{jm}F_m + d_jU_j \qquad (j = 1, \ldots, n) \text{ where}$$

n is the number of observed variables, and where each of the observed variables is described linearly in terms of m (usually much smaller than n) *common factors* and a *unique factor* U (Harman, p.15)

Factor analysis reduces a set of variables (linearly) into a small number of categories or factors. In this study, the equation represents the regression of each of the 82 variables (z_j) on the m factors

Regression Analysis. After reducing 82 variables to fewer variables, namely factors, the factor scores for each institution were used as independent variables, and the average salary as the dependent variable in a stepwise regression procedure.

Results

Factor Analysis. The initial analysis produced 10 factors with the criterion that the retained factors account for 75% of the common variance. Varimax rotation produced ten factors. The variables did "load" on the factors in a very similar fashion. The yellow attachment is the Rotated Factor Pattern. The entries in this table are the loadings of each variable (first column) on each of the ten factors. In identifying the factors with high loadings, a loading of 0.40 was the cut-off point. The highlighted numbers show that FACTOR1 has the highest loading on the greatest number of variables. The tentative label for Factor1 is *general financial picture*, since the variables that have high loadings on Factor1 are important items in both Revenues and Expenditures. Table 1 is a list of the variables and the factors associated with them. At the other extreme, FACTOR10 has high loading on only two variables -- A91023 and A 91022. From the gray attachment, page 1, these variables are the Restricted and Total Federal appropriations. Essentially Factor10 then is the variable itself -- *Federal appropriations*.

Table 1 and the blue attachment are identical. Table 1 is a reproduction of the highlighted variables with high loadings on the ten factors, in the yellow attachment. The factor names are shown in the first column. This table shows how the factors continue to narrow down to fewer variables. Factors 6, 7, 8 and 10 represent one variable each. The X's indicate loadings on the unrestricted, restricted or total amounts variables of each item. Tentative names are given to each factor to facilitate interpretation.

Table 1
Variables with High Loadings on Ten Factors
Varimax Rotation

Factor (Tentative Names)	Finance Variable	Un-rest	Rest	Tot	Remarks
F1 General Financial	FTE	N/A	N/A	N/A	No. of Full Tm St.
Picture	REVENUES				
	Tuition and Fees	X		X	
	Gov App - State	X		X	Unrestricted Rev
	Local	X		X	& Exp=Hi %
	Gov Gr & Con--Federal		X	X	
	State		X		
	Aux Enterprises	X		X	No end.,sales,serv
	Other Sources	X		X	
	Total Curr Funds Rev	X	X	X	
	EXPENDITURES				
	Instruction	X		X	No Research
	Academic Support	X	X	X	
	Student Services	X	X	X	
	Institutional Support	X		X	
	Op & Maint of Plant	X	X	X	
	Scholar. & Fellowships		X	X	
	Total E&G Exp & Trans	X	X	X	
	Auxiliary Enterprises	X		X	
	Tot Cur Fnds Exp & Tr	X	X	X	
F2 Restricted Basic Finance	Rev: Tuition & Fees		X		
	State Approp		X		
	Tot Curr Funds Rev		X		
	Exp: Instruction		X		
	Academic Support		X		Restr Rev & Exp
	Student Services		X		= low %
	Op/Maint of Plant		X		
	Tot E&G Exp/Trans		X		
	Tot CF Exp/Trans		X		
F3 Limited Specific Finance	Rev: Local Approp	X		X	Mostly
	Other Sources		X	X	Restricted
	Exp: Institutional Supp		X		
	Mandatory Trans		X		

Table 1--Continued

F4 Negligible Finance	Rev: Endowment	X		X	
	Exp: Nonmand Transf	X		X	
F5 State/Local Grants & Contracts	Rev: State Grnts & Con	X		X	
	Local Grnts & Con	X	X	X	
F6 Public Serv Expend	Exp: Public Service		X	X	
F7 Sales/Serv of Ed Act	Rev: Sales/Serv of Ed Act	X		X	
F8 Unresticted Mandatory Transfers	Exp: Mand Transf	X		X	
F9 Nonpredictive Revenues	Rev: Priv G,Gr & Con -		X	X	Rev Only
	Ind Operations	X		X	
F10 Federal Approp	Rev: Federal Appropr		X	X	

Regression Analysis. The stepwise regression stopped at the seventh step after meeting the significance level (0.15) for a variable to enter the regression. Seven factors were retained by the process, namely Factor1, Factor3, Factor5, Factor6, Factor7, Factor8 and Factor10. They are shown in Table 2a. The intercept, and the coefficient of each factor are shown in the second column. These parameters form the regression equation. The summary of the stepwise procedure is shown in Table 2b.

Table 3 is the Regression Results for the first 60 observations. It is voluminous to include in this paper the results for all 842 comunity colleges. The first column is the actual average salary, followed by the predicted value. The 95% confidence interval for the mean, and the 95 % confidence interval for the individual predicted average salary are also shown. These confidence intervals will help to explain the predicted salary when compared with he actual.

Table 4 is an extension of Table 3 and represents the regression of salary on the seven finance factors. It shows the UNITID (ID number) of each community college, the actual average salary and the predicted average salary. The next columns are the factor scores for each institution on the seven factors; the tentative names assigned to the factors are printed on the respective column headings. This will help in the interpretation of the results.

Table 2a

Step 7 of Stepwise Regression

Step 7 Variable FACTOR7 Entered R-square = 0.22383346 C(p) = 5.22509775

	DF	Sum of Squares	Mean Square	F	Prob>F
Regression	7	8371364271.9137	1195909181.7020	29.09	0.0001
Error	706	29028603439.447	41117002.038876		
Total	713	37399967711.360			

Variable	Parameter Estimate	Standard Error	Type II Sum of Squares	F	Prob>F
INTERCEP	35264.76132508	240.10793449	886931982240.48	21570.9	0.0001
FACTOR1	2309.07366304	203.01066458	5319359118.3096	129.37	0.0001
FACTOR3	1534.37072973	189.27459247	2702075079.9932	65.72	0.0001
FACTOR5	935.39877872	231.85969341	669213239.08539	16.28	0.0001
FACTOR6	-1166.50313184	212.83962351	1235060680.3922	30.04	0.0001
FACTOR7	398.56946148	237.36405561	115930997.77329	2.82	0.0936
FACTOR8	-580.71810785	212.72769767	306410821.05567	7.45	0.0065
FACTOR10	-776.79134653	259.52256892	368366337.62029	8.96	0.0029

Bounds on condition number: 1.293363, 54.64562

All variables left in the model are significant at the 0.1500 level.
No other variable met the 0.1500 significance level for entry into the model.

Table 2b

Summary of Stepwise Procedure (Dependent Variable SAL9_91)

Step	Variable Entered	Variable Removed	Number In	Partial R**2	Model R**2	C(p)	F	Prob>F
1	FACTOR1		1	0.0681	0.0681	134.3417	52.0138	0.0001
2	FACTOR3		2	0.0890	0.1571	55.7279	75.0482	0.0001
3	FACTOR6		3	0.0284	0.1855	31.9987	24.7530	0.0001
4	FACTOR5		4	0.0173	0.2028	18.3230	15.3866	0.0001
5	FACTOR10		5	0.0095	0.2123	11.6929	8.5612	0.0035
6	FACTOR8		6	0.0085	0.2207	6.0336	7.6699	0.0058
7	FACTOR7		7	0.0031	0.2238	5.2251	2.8195	0.0936

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Table 3

Regression Results for the First 60 Observations

Obs	Dep Var Ave Sal	Predict Value	Std Err Predict	Lower95% Mean	Upper95% Mean	Lower95% Predict	Upper95% Predict	Residual
1	30164.5	33864.1	298.056	33278.9	34449.2	21261.1	46467.0	-3699.6
2	32676.6	33662.0	297.589	33077.7	34246.2	21059.0	46264.9	-985.4
3	.	.	.	.	.	.	.	.
4	34493.2	35543.0	422.359	34713.8	36372.2	22926.4	48159.7	-1049.8
5	33546.6	33478.2	289.867	32909.1	34047.3	20876.0	46080.4	68.3495
6	36109.9	33231.1	308.787	32624.8	33837.3	20627.1	45835.0	2878.8
7	.	33131.0	299.041	32543.8	33718.1	20527.9	45734.0	.
8	33025.1	33857.1	295.272	33277.4	34436.8	21254.4	46459.8	-832.0
9	.	33754.7	309.567	33146.9	34362.4	21150.6	46358.7	.
10	.	33417.0	297.976	32832.0	34002.1	20814.1	46020.0	.
11	34105.4	33886.7	283.481	33330.1	34443.2	21285.0	46488.3	218.7
12	31171.3	33361.6	314.718	32743.7	33979.5	20757.1	45966.2	-2190.4
13	34085.3	34454.3	287.332	33890.1	35018.4	21852.3	47056.3	-368.9
14	32205.8	34478.7	278.480	33932.0	35025.5	21877.5	47079.9	-2272.9
15	30802.1	33662.1	435.263	32807.6	34516.7	21043.8	46280.5	-2860.0
16	32688.7	33537.9	283.916	32980.4	34095.3	20936.2	46139.6	-849.2
17	.	33813.4	305.549	33213.5	34413.3	21209.7	46417.0	.
18	.	33765.2	297.631	33180.8	34349.5	21162.3	46368.1	.
19	.	34091.6	310.969	33481.0	34702.1	21487.4	46695.7	.
20	31494.2	33240.7	298.749	32654.2	33827.3	20637.7	45843.8	-1746.5
21	33799.7	34343.9	309.369	33736.6	34951.3	21739.9	46948.0	-544.3
22	32931.7	38453.7	471.768	37527.5	39379.9	25830.3	51077.1	-5522.0
23	32415.9	33301.2	298.377	32715.4	33887.0	20698.2	45904.2	-885.3
24	33113.0	31855.4	697.984	30485.0	33225.8	19191.7	44519.1	1257.6
25	30913.1	33479.6	293.616	32903.2	34056.1	20877.1	46082.2	-2566.5
26	.	33242.7	327.137	32600.4	33885.0	20637.0	45848.4	.
27	33288.4	33783.8	304.978	33185.0	34382.6	21180.2	46387.4	-495.4
28	31961.6	33131.8	294.805	32553.0	33710.6	20529.2	45734.5	-1170.2
29	30957.7	33402.0	292.362	32828.0	33976.0	20799.5	46004.4	-2444.3
30	.	33694.8	300.555	33104.7	34284.9	21091.6	46298.0	.
31	28568.7	32929.6	360.573	32221.7	33637.6	20320.4	45538.9	-4360.9
32	31802.9	33869.5	275.674	33328.2	34410.7	21268.5	46470.5	-2066.6
33	33377.4	33382.4	292.678	32807.8	33957.1	20780.0	45984.9	-5.0308
34	37528.2	33745.4	282.935	33189.9	34300.9	21143.8	46347.1	3782.8
35	.	33358.7	297.741	32774.2	33943.3	20755.8	45961.7	.
36	35128.6	33431.5	290.267	32861.6	34001.4	20829.3	46033.8	1697.0
37	35878.1	35592.2	305.051	34993.3	36191.1	22988.6	48195.8	285.9
38	28884.4	37204.9	294.025	36627.7	37782.2	24602.3	49807.5	-8320.6
39	35361.1	36348.3	275.698	35807.0	36889.5	23747.3	48949.3	-987.2
40	36593.5	35127.4	365.013	34410.8	35844.0	22517.7	47737.2	1466.1
41	48382.8	38187.5	468.578	37267.6	39107.5	25564.6	50810.5	10195.3
42	44324.2	34975.7	283.147	34419.8	35531.6	22374.0	47577.3	9348.5
43	49712.0	37658.8	545.293	36588.2	38729.4	25024.0	50293.6	12053.2
44	33730.4	35401.0	293.834	34824.1	35977.9	22798.4	48003.6	-1670.6
45	35249.0	34982.4	266.323	34459.5	35505.3	22382.2	47582.6	266.6
46	50850.5	38408.8	369.305	37683.8	39133.9	25798.6	51019.1	12441.6
47	35574.6	43969.7	1177.652	41657.6	46281.9	31169.8	56769.7	-8395.1
48	45511.9	34396.0	405.028	33600.8	35191.2	21781.6	47010.5	11115.9
49	47737.0	37652.0	337.530	36989.4	38314.7	25045.2	50258.8	10085.0
50	39317.4	35302.2	262.589	34786.7	35817.8	22702.3	47902.1	4015.2
51	39343.7	36061.9	335.966	35402.3	36721.5	23455.2	48668.5	3281.8
52	27044.2	33814.2	285.907	33252.9	34375.5	21212.3	46416.1	-6770.0
53	28318.0	33116.5	301.257	32525.0	33707.9	20513.2	45719.7	-4798.5
54	30690.7	33465.2	290.806	32894.2	34036.1	20862.9	46067.5	-2774.5
55	25519.5	33480.9	288.113	32915.3	34046.6	20878.8	46083.0	-7961.5
56	28100.1	33319.9	296.678	32737.5	33902.4	20717.1	45922.8	-5219.9
57	26578.4	33528.0	293.469	32951.8	34104.2	20925.5	46130.6	-6949.7
58	28465.2	33551.5	299.491	32963.5	34139.5	20948.4	46154.6	-5086.3
59	30280.4	33678.8	302.708	33084.5	34273.2	21075.5	46282.2	-3398.4
60	29431.5	34212.7	303.102	33617.6	34807.8	21609.3	46816.1	-4781.2

Table 4

Actual and Predicted Average Salaries of 9/10 Month Faculty in 714 Community Colleges (For the First 60 Colleges)

Regression of Salary on Seven Finance Factors

OBS	UNITID	Average Salary Actual	Predict Salary	General Financial F1	Limited Specific F2	State/Loc Grnts&Cont F5
1	100672	30164.48	33864.05	-0.60477	-0.15629	-0.14225
2	100760	32676.58	33661.96	-0.53188	-0.26340	-0.07335
3	100821	.	.	.	.	.
4	100919	34493.21	35543.01	-0.47281	-0.01175	-0.12364
5	100964	33546.57	33478.22	-0.68510	-0.09324	-0.09113
6	100973	36109.88	33231.08	-0.75594	-0.09944	-0.10998
7	100991	.	33130.95	-0.74306	-0.11625	-0.14432

OBS	Publ Serv Expend F6	Sales&Serv of Ed Act F7	Unrestr Mandatory F8	Federal Approp F10
1	-0.20177	-0.29013	-0.11528	-0.23424
2	0.04084	0.08867	0.26532	-0.34050
3	.	.	.	.
4	-0.56338	1.02690	0.23191	-0.73621
5	-0.08847	-0.24985	-0.00249	-0.02401
6	-0.26437	-0.28744	-0.01997	0.30657
7	-0.09675	-0.09842	0.30644	0.00043

OBS	UNITID	Average Salary Actual	Predict Salary	General Financial F1	Limited Specific F2	State/Loc Grnts&Cont F5
8	101028	33025.13	33857.09	-0.63562	-0.08096	-0.09597
9	101037	.	33754.65	-0.81741	0.00639	0.26970
10	101107	.	33417.05	-0.73131	-0.18761	-0.10565
11	101143	34105.37	33886.67	-0.50778	-0.24805	-0.03393
12	101161	31171.27	33361.64	-0.35150	-0.12281	-0.20240
13	101240	34085.35	34454.27	0.20205	-0.55066	-0.26563
14	101286	32205.78	34478.70	-0.18724	-0.12496	-0.15216

OBS	Publ Serv Expend F6	Sales&Serv of Ed Act F7	Unrestr Mandatory F8	Federal Approp F10
8	-0.22951	-0.31599	0.07967	-0.22978
9	0.04329	-0.16046	-0.11130	-0.21253
10	-0.12986	-0.07830	0.04286	-0.17026
11	-0.14058	-0.25048	-0.08175	-0.12246
12	-0.05523	-0.38613	0.41595	0.49267
13	0.11879	0.24179	0.50797	-0.19765
14	-0.18411	0.29269	0.50666	0.07318

Continued...

Table 4--Continued

OBS	UNITID	Average Salary Actual	Predict Salary	General Financial F1	Limited Specific F2	State/Loc Grnts&Cont F5
15	101295	30802.08	33662.12	-0.19736	-0.13692	-0.34847
16	101301	32688.67	33537.87	-0.53108	-0.21259	-0.21141
17	101347	.	33813.37	-0.71639	-0.11843	-0.13444
18	101383	.	33765.18	-0.74231	-0.10226	-0.11809
19	101462	.	34091.57	-0.69728	-0.07315	-0.11277
20	101499	31494.24	33240.73	-0.71099	-0.15964	-0.14190
21	101505	33799.68	34343.95	0.40166	-0.73613	0.02998

OBS	Publ Serv Expend F6	Sales&Serv of Ed Act F7	Unrestr Mandatory F8	Federal Approp F10
15	-0.14864	0.20192	1.65927	-0.12722
16	-0.10620	-0.14756	0.21627	-0.10799
17	-0.24528	-0.18529	-0.21919	-0.21978
18	-0.24201	0.09061	-0.03533	-0.18395
19	-0.24838	0.14106	0.05125	-0.43564
20	-0.15063	-0.26796	0.18725	-0.04533
21	0.17655	-0.04323	0.81846	0.06224

OBS	UNITID	Average Salary Actual	Predict Salary	General Financial F1	Limited Specific F2	State/Loc Grnts&Cont F5
22	101514	32931.69	38453.70	0.36211	1.07720	-0.82472
23	101523	32415.86	33301.17	-0.66599	-0.11370	-0.13528
24	101569	33112.98	31855.39	-0.55138	-0.17444	0.15964
25	101602	30913.08	33479.63	-0.62247	-0.18910	-0.14108
26	101736	.	33242.69	-0.48480	-0.08949	-0.19339
27	101897	33288.41	33783.81	-0.60274	-0.20842	-0.17427
28	101903	31961.62	33131.85	-0.40429	-0.34702	-0.15466

OBS	Publ Serv Expend F6	Sales&Serv of Ed Act F7	Unrestr Mandatory F8	Federal Approp F10
22	-0.91947	0.40971	0.11125	-0.38640
23	-0.21590	-0.21921	0.07334	0.31753
24	-0.31567	-0.19760	0.73958	2.41747
25	-0.11762	-0.25144	0.16244	-0.16948
26	-0.23178	-0.34151	0.58618	0.48698
27	-0.26048	-0.31920	0.01797	-0.29279
28	0.13622	0.08005	0.44887	0.17328

Continued...

Table 4--Continued

OBS	UNITID	Average Salary Actual	Predict Salary	General Financial F1	Limited Specific F2	State/Loc Grnts&Cont F5
29	101949	30957.68	33401.96	-0.69703	-0.08608	-0.12658
30	101994	.	33694.77	-0.71414	-0.14015	-0.07682
31	102030	28568.71	32929.65	-0.61116	-0.15382	-0.08969
32	102067	31802.93	33869.48	-0.15962	-0.25088	-0.41331
33	102076	33377.40	33382.43	-0.64380	-0.18257	-0.14753
34	102225	37528.20	33745.44	-0.54694	-0.24821	-0.13193
35	102313	.	33358.73	-0.65192	-0.29393	0.05906

OBS	Publ Serv Expend F6	Sales&Serv of Ed Act F7	Unrestr Mandatory F8	Federal Approp F10
29	-0.15779	-0.27392	0.08244	0.03843
30	-0.18508	-0.20688	-0.15584	-0.18278
31	0.10691	-0.23531	0.98073	-0.23693
32	0.08731	-0.05571	0.28349	-0.04316
33	-0.13627	-0.24273	-0.07001	0.10364
34	-0.16884	-0.12318	-0.01119	-0.12037
35	-0.04534	-0.14449	0.23014	-0.17175

OBS	UNITID	Average Salary Actual	Predict Salary	General Financial F1	Limited Specific F2	State/Loc Grnts&Cont F5
36	102429	35128.56	33431.52	-0.60932	-0.14118	-0.16380
37	104160	35878.08	35592.20	-0.29299	0.21417	0.62401
38	104346	28884.36	37204.94	0.04110	0.76291	0.17486
39	104425	35361.09	36348.26	0.00151	0.09273	0.12955
40	104577	36593.48	35127.40	-0.12694	-0.40391	-0.35734
41	104708	48382.83	38187.53	0.57898	0.39813	0.34588
42	105145	44324.22	34975.67	-0.44254	0.31298	0.25532

OBS	Publ Serv Expend F6	Sales&Serv of Ed Act F7	Unrestr Mandatory F8	Federal Approp F10
36	-0.00946	-0.21158	0.16488	-0.14496
37	-0.20377	0.26915	-0.05049	0.36384
38	-0.08826	-0.10388	-0.53912	-0.17570
39	-0.38414	-0.03773	-0.35675	-0.22697
40	-0.60434	-0.44073	-0.57290	-0.31896
41	-0.43808	1.17430	-0.43527	0.74714
42	0.14174	0.40115	0.02527	-0.04359

Continued...

Table 4--Continued

OBS	UNITID	Average Salary Actual	Predict Salary	General Financial F1	Limited Specific F2	State/Loc Grnts&Cont F5
43	105154	49711.98	37658.79	1.13612	-0.24745	1.39292
44	105206	33730.40	35400.99	-0.40472	0.29079	-0.12582
45	105349	35248.96	34982.41	-0.36807	0.11205	-0.04458
46	105428	50850.47	38408.84	0.56574	0.49377	0.18933
47	105525	35574.64	43969.74	2.53923	2.23753	-0.24253
48	105668	45511.89	34396.01	-0.11465	0.07485	0.56609
49	105747	47737.01	37652.04	0.34575	0.29198	0.06331

OBS	Publ Serv Expend F6	Sales&Serv of Ed Act F7	Unrestr Mandatory F8	Federal Approp F10
43	0.17309	0.23304	0.43620	1.01737
44	-0.42650	-0.24097	-0.50102	-0.06415
45	-0.20367	-0.09940	-0.37679	-0.02644
46	-0.72794	0.49570	-0.09878	0.25885
47	-1.49929	-0.06171	3.16758	0.32119
48	1.25036	-0.22615	-0.75060	0.17452
49	-0.73794	0.01474	-0.54504	0.13068

OBS	UNITID	Average Salary Actual	Predict Salary	General Financial F1	Limited Specific F2	State/Loc Grnts&Cont F5
50	105792	39317.39	35302.21	-0.34338	0.17627	0.01424
51	106148	39343.66	36061.86	0.03880	0.39200	-0.39980
52	106449	27044.22	33814.18	-0.52518	0.03405	-0.24781
53	106883	28317.96	33116.46	-0.58181	-0.34499	-0.13167
54	106980	30690.69	33465.17	-0.56530	-0.28640	-0.15779
55	107327	25519.45	33480.91	-0.59771	-0.25699	-0.07234
56	107460	28100.06	33319.93	-0.53913	-0.30675	-0.04463
57	107619	26578.36	33528.02	-0.54518	-0.19896	-0.14386
58	107743	28465.20	33551.52	-0.75801	-0.03060	-0.10956
59	107974	30280.44	33678.84	-0.71369	-0.12246	-0.09207
60	107992	29431.50	34212.68	-0.64986	-0.04890	0.04266

OBS	Publ Serv Expend F6	Sales&Serv of Ed Act F7	Unrestr Mandatory F8	Federal Approp F10
50	-0.36454	-0.10743	-0.14745	-0.10109
51	-0.24771	-0.01824	-0.86387	0.39049
52	-0.12811	-0.35078	0.17150	-0.04070
53	0.08804	-0.22750	0.15902	-0.17169
54	-0.09989	-0.22205	0.07737	-0.14122
55	-0.05420	-0.17927	0.03976	-0.11538
56	0.01737	-0.25046	0.34444	-0.17067
57	0.07745	-0.08794	0.22667	-0.28191
58	-0.24003	-0.29984	-0.11578	0.05308
59	-0.15634	-0.24883	-0.16132	-0.20492
60	-0.25100	-0.34105	-0.22834	-0.24995

Summary

The study was motivated by efforts being made to make sense of finance data in order to appraise the financial condition of higher education institutions. The interest in budget analysis is also linked to the fiscal crisis in higher education that impacts on salaries of faculty. The study was an attempt to have a simpler but systematic approach to the analysis of the financial condition of higher education institutions in the nation

The results were encouraging on three counts: *First*, factor analysis has reduced the 82 finance variables to a set of ten factors, that can describe through computed factor scores the financial condition of postsecondary institutions, with greater parsimony and measurable precision. *Second*, it seems that there would not be much difficulty in naming the factors with descriptive labels that are meaningful to those concerned with the financial status of these institutions. With these two results in mind, peer institutions may be compared on the basis of these factors, and recommendations related to financial needs will have some basis. *Third*,. The prediction of institutional salariy averages using finance factors as predictors has good implications for faculty groups. Monitoring the financial healh of an institution prepares the faculty for what to expect in yet to come figures on average salaries. Because this is just a first attempt, more studies have to be done to make the procedure a working model.

Future Development

The variables used in this study were raw data as reported by NCES. John Lee and Sue Clery[4] formulated 84 ratios from these variables with very useful definitions and interpretations for purposes of assessing the financial status of higher education institutions. In broad categories these are Revenues Ratios, Expenditures Ratios, Assets and Endowment Ratios, Working Capital Ratios, and Financial Flexibility Ratios, among others.

In the next phase of this study, the procedures will be replicated with these ratios as variables. Further replications will be conducted, using other types of institutions. After attaining stability of the factors and a satisfactory fit of the regression equation, two years of finance data sets will be used to test the method, e.g., 1988-1989. The procedures will be replicated on the 1988 data set. Factor scores will be obtained from the 1989 finance data, and the 1988 regression equation will be applied to the 1989 data to predict 1989 average salaries. Since the 1989 salaries were not used in developing the regression equation, the 1989 predicted average salaries will be a test of the precision of the average salary estimates for each institution.

Acknowledgment

The author wishes to acknowledge Sue Clery of JBL Associates for organizing the complicated data sets to suit the need of the study, and for providing technical advice in the application of SAS windows.

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[4]JBL Associates, 6900 Wisconsin Avenue,Suite 406, Bethesda, MD 20815

Section I CURRENT YEAR DATA

Part A — CURRENT FUNDS REVENUES BY SOURCE

This report covers finance activity for the 12-month fiscal year beginning _____, 199 ___ and ending _____, 199 ___.

Line No.	Source of funds	Amount (whole dollars) Unrestricted (1)	Restricted (2)	TOTAL (3)
01	Tuition and fees	$ A91011	$ A91012	$ A91013
02	Government appropriations: Federal	(Part) (Yr) (Row) (Column) A91021	A91022	A91023
03	Through State channels $			
04	State	A91041	A91042	A91043
05	Local	A91051	A91052	A91053
06	Government grants and contracts: Federal	A91061	A91062	A91063
07	State	191071	A91072	A91073
08	Local	A91081	A91082	A91083
09	Private gifts, grants, and contracts	A91091	A91092	A91093
10	Endowment income	A91101	A91102	A91103
11	Sales and services of educational activities	A91111	A91113	A91113
12	Auxiliary enterprises	A91121	A91122	A91123
13	Hospitals	A91131	A91132	A91133
14	Other sources	A91141	A91142	A91143
15	Independent operations	A91151	A91152	A91153
16	**TOTAL CURRENT FUNDS REVENUES** *(Sum of lines 1, 2, 4—15)*	$ A91161	$ A91162	$ A91163

Notes *(Reference part, line, and column)*

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Section I **CURRENT YEAR DATA — Continued**

Part B – CURRENT FUNDS EXPENDITURES BY FUNCTION

Line No.	Function of expenditure	Amount (whole dollars) Unrestricted (1)	Restricted (2)	TOTAL (3)	Amount for salaries & wages included in col. 3 (4)
	EDUCATIONAL AND GENERAL:	$	$	$	$
01	Instruction	B91011	B91012	B91013	
02	Research	B91021	B91022	B91023	
03	Public service	B91031	B91032	B91033	
04	Academic support	B91041	B91042	B91043	
05	Includes library expenditures of $				
06	Student services	B91061	B91062	B91063	
07	Institutional support	B91071	B91072	B91073	
08	Operation and maintenance of plant	B91081	B91082	B91083	
09	Scholarships and fellowships — from Part E, line 7	B91091	B91092	B91093	
10	Mandatory transfers	B91101	B91102	B91103	
11	Nonmandatory transfers - educational activities	B91111	B91112	B91113	
12	TOTAL EDUCATIONAL AND GENERAL EXPENDITURES AND TRANSFERS (Sum of lines 1–6, 8–11)	$ B91121	$ B91122	$ B91123	
13	Auxiliary enterprises	$ B91131	$ B91132	$ B91133	
14	Includes mandatory transfer of $ B91141				
15	Includes nonmandatory transfer of $				

*Only items where negative is always mean transferring from other funds but cannot count as revenues.

Section I **CURRENT YEAR DATA — Continued** F-1

Part B – CURRENT FUNDS EXPENDITURES BY FUNCTION – Continued

Line No.	Function of expenditures		Amount (whole dollars) Unrestricted (1)	Restricted (2)	TOTAL (3)	Amount for [illegible] (4)
16	Hospitals		$ B91161	$ B91162	$ B91163	
17	Includes mandatory transfer of	$ B91171				
18	Includes nonmandatory transfer of	$				
19	Independent operations		B91191	B91192	B91193	
20	Includes mandatory transfer of	$ B91201				
21	Includes nonmandatory transfer of	$				
22	**TOTAL CURRENT FUNDS EXPENDITURES AND TRANSFERS** *(Sum of lines 12, 13, 16, and 19)*		$ B91221	$ B91222	$ B91223	

Line No.	Function of expenditures	Amount (whole dollars) Unrestricted (1)	Restricted (2)	TOTAL (3)	Employee compensation (4)
23	Total salaries and wages for E&G *(Sum of column 4, lines 1—4 and 6—8)*				$
24	Total E&G employee fringe benefits paid from institutional accounts				
25	Total E&G employee fringe benefits paid from noninstitutional accounts Not included on line 12, column 3				
26	Included on line 12, column 3				
27	**TOTAL E&G EMPLOYEE COMPENSATION** *(Sum of lines 23—26)*				$

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The SAS System

Principal Factor Analysis of Finance data CC:
Priors = max Proportion =.75 Varimax Rotation

Rotated Factor Pattern

	FACTOR1	FACTOR2	FACTOR3	FACTOR4	FACTOR5
B91121	**0.97382**	0.07325	0.11776	0.06517	0.06979
B91221	**0.97221**	0.07234	0.10455	0.08027	0.06938
A91161	**0.97080**	0.10309	0.10309	0.06785	0.06492
B91011	**0.95492**	0.07844	0.10329	0.02113	0.06347
B91123	**0.94546**	0.19955	0.13302	0.06106	0.08545
A91163	**0.94513**	0.19567	0.13810	0.05949	0.08452
B91223	**0.94408**	0.20290	0.12998	0.06999	0.08542
B91061	**0.94132**	0.06409	0.06651	0.02861	0.07435
B91081	**0.93069**	0.03314	0.12525	0.02882	0.06579
B91013	**0.92846**	0.18937	0.10992	0.03031	0.06836
B91083	**0.92065**	0.13000	0.12480	0.03061	0.06792
FTE	**0.91612**	0.12217	0.06929	0.03039	0.08516
B91063	**0.91181**	0.23051	0.08466	0.03296	0.10282
B91071	**0.89968**	0.08816	0.16771	0.00909	0.07765
B91041	**0.88275**	0.03128	0.05741	0.06651	0.08151
A91041	**0.87916**	0.22795	-0.13586	-0.02370	-0.09139
B91043	**0.86790**	0.17260	0.05350	0.05546	0.06544

	FACTOR1	FACTOR2	FACTOR3	FACTOR4	FACTOR5
A91043	**0.86002**	0.30716	-0.13344	-0.01548	-0.08962
A91013	**0.81287**	-0.07196	-0.00956	0.04556	0.06836
A91011	**0.80546**	-0.11541	-0.00638	0.04201	0.06702
B91073	**0.80080**	0.21842	0.30878	0.00388	0.13175
B91092	**0.72086**	0.13657	-0.15688	-0.03307	0.06931
B91093	**0.71653**	0.12320	-0.15843	-0.02701	0.06489
A91062	**0.68167**	0.20844	-0.12240	-0.02873	0.04685
A91063	**0.67740**	0.20089	-0.13218	-0.02839	0.04742
A91123	**0.65855**	0.18138	0.04793	0.16131	-0.02661
B91133	**0.63816**	0.17424	0.03524	0.16004	0.06813
A91141	**0.61799**	0.04607	0.25843	0.07037	-0.00048
A91121	**0.61061**	0.08689	-0.10888	0.20346	-0.01635
A91051	**0.60600**	0.00827	**0.52672**	0.12030	0.04119
A91053	**0.60029**	0.01331	**0.53103**	0.12091	0.03936
A91162	**0.59655**	**0.56249**	0.26110	0.00781	0.15243
B91131	**0.58731**	0.02718	-0.08263	0.21502	0.05054
A91072	**0.42085**	0.32098	0.28439	0.01787	0.19339

Rotated Factor Pattern

	FACTOR1	FACTOR2	FACTOR3	FACTOR4	FACTOR5
B91031	0.38611	0.07841	0.14003	0.07880	0.02920
B91112	0.20002	0.19255	0.05682	0.10282	-0.04764
B91222	**0.56023**	**0.69508**	0.20074	0.00713	0.12917
B91012	0.24333	**0.67509**	0.08721	0.06157	0.05765
B91122	**0.55327**	**0.67192**	0.15892	0.02625	0.12671
B91082	0.06975	**0.65184**	0.03614	0.01739	0.03355
B91042	0.23441	**0.54761**	0.02278	-0.01990	-0.02522
B91062	**0.49033**	**0.51443**	0.10143	0.03115	0.12967
A91042	-0.09514	**0.51080**	0.02342	0.04872	0.01233
A91012	0.20879	**0.40660**	-0.00966	0.04289	0.03242
B91132	0.19878	0.32833	0.24966	-0.09058	0.04785
A91142	0.09078	0.12282	**0.63969**	-0.00912	0.00351
B91102	0.04228	0.02843	**0.62205**	0.02114	0.01225
A91143	**0.50994**	0.10395	**0.58030**	0.04625	0.00115
B91072	0.05639	0.36934	**0.41453**	-0.00636	0.16693
A91122	0.17989	0.25169	0.39233	-0.09049	-0.02487
A91103	-0.04272	-0.00700	-0.03402	**0.84908**	0.01001

	FACTOR1	FACTOR2	FACTOR3	FACTOR4	FACTOR5
B91111	0.23730	0.10916	0.03170	**0.83777**	0.00938
A91101	-0.04778	-0.00086	-0.03954	**0.83517**	0.00814
B91113	0.26696	0.14849	0.04083	**0.82364**	-0.00427
A91102	0.01951	-0.01878	0.01508	0.12728	0.00506
A91083	0.10932	0.06018	-0.00643	0.01134	**0.88360**
A91081	0.03556	-0.01293	-0.05535	-0.01206	**0.85463**
A91071	0.05819	-0.01291	0.00605	-0.00610	**0.73096**
A91073	0.32148	0.20656	0.19491	0.00774	0.62590
A91082	0.17112	0.13894	0.06766	0.03838	0.47880
B91033	0.22028	0.04403	0.11143	0.07262	0.02631
B91032	0.08138	0.01817	0.06449	0.04914	0.01983
B91091	0.16046	-0.08043	-0.05285	0.05305	-0.02117
A91061	0.10937	-0.01751	-0.09329	0.00254	0.01419
A91113	0.18815	0.00970	-0.07263	0.01536	-0.03238
A91111	0.20979	-0.01212	-0.10346	0.02378	-0.02273
B91023	0.08519	0.02592	0.08333	-0.01909	0.04498
B91021	0.11478	0.00702	0.06250	-0.02695	0.01541

Rotated Factor Pattern

	FACTOR1	FACTOR2	FACTOR3	FACTOR4	FACTOR5
B91022	0.01841	0.02807	0.05541	-0.00313	0.04494
A91112	0.02658	0.04329	0.03262	-0.01096	-0.02729
A91052	0.04029	0.10713	0.18462	0.03807	-0.02500
A91091	0.10881	-0.05342	-0.06764	0.00372	0.03791
B91101	0.30777	-0.03927	0.15927	0.09631	-0.04139
B91103	0.28596	-0.02672	0.45593	0.09515	-0.03057
A91153	-0.02724	0.02237	0.08702	-0.04948	-0.04246
A91151	-0.04176	0.05121	0.04706	-0.04536	-0.05815
A91093	0.34847	0.01003	-0.16801	0.03791	0.23998
A91092	0.34019	0.03015	-0.15595	0.03960	0.24274
A91152	0.02577	-0.04594	0.08717	-0.01403	0.02404
A91023	0.07327	0.07051	0.07856	-0.02500	-0.01852
A91022	0.08099	0.09449	0.04810	-0.00024	-0.03276
A91021	0.01809	-0.00277	0.06447	-0.03966	0.00906

	FACTOR6	FACTOR7	FACTOR8	FACTOR9	FACTOR10
B91121	0.04394	0.08653	0.05408	0.01382	0.00606
B91221	0.06644	0.10043	0.03383	0.05628	0.03540
A91161	0.06818	0.09589	0.02098	0.05915	0.04089
B91011	0.01322	0.11647	0.04101	0.02156	0.01951
B91123	0.09636	0.10403	0.09595	0.02474	0.02425
A91163	0.10821	0.10726	0.06746	0.06486	0.04928
B91223	0.10714	0.10996	0.07291	0.06362	0.04337
B91061	-0.02702	0.09116	0.04746	0.00869	0.01823
B91081	0.08713	0.09857	0.06847	-0.00190	-0.02210
B91013	0.00852	0.15344	0.06245	0.04308	0.05893
B91083	0.08342	0.09031	0.05099	-0.00908	-0.02111
FTE	0.06812	0.04243	0.09103	0.03367	0.01451
B91063	-0.03929	0.05823	0.01846	0.01423	0.00798
B91071	0.09636	0.03470	0.08660	-0.00564	-0.01931
B91041	-0.00045	-0.02578	0.00498	0.03935	0.04823
A91041	0.06426	-0.08955	0.00222	-0.02312	-0.05569
B91043	-0.00317	-0.04326	0.00503	0.01544	0.03066

Rotated Factor Pattern

	FACTOR6	FACTOR7	FACTOR8	FACTOR9	FACTOR10
A91043	0.05540	-0.06574	0.02119	-0.03164	-0.03300
A91013	0.11618	0.10828	0.27567	0.04033	0.07918
A91011	0.11906	0.11002	0.28863	0.03757	0.08029
B91073	0.16098	0.01996	0.01939	-0.00113	-0.01934
B91092	0.14179	0.16127	0.49626	0.05109	0.04529
B91093	0.17243	0.15285	0.50493	0.05232	0.05444
A91062	0.21321	0.16109	0.47155	0.04387	0.05101
A91063	0.23112	0.17733	0.45859	0.05104	0.05841
A91123	0.23842	0.12486	-0.16117	0.26680	0.30036
B91133	0.20840	0.13685	-0.21177	0.31895	0.28348
A91141	0.31199	-0.00255	0.01841	-0.04084	-0.11960
A91121	0.29647	0.17277	-0.18361	0.26325	0.36472
A91051	-0.12031	0.27976	-0.08477	0.05670	0.06504
A91053	-0.11448	0.28984	-0.08915	0.05655	0.07554
A91162	0.26166	0.13116	0.25772	0.07445	0.07473
B91131	0.29296	0.19787	-0.19805	0.32704	0.35930
A91072	0.39318	-0.05859	-0.12650	0.02764	-0.22234

	FACTOR6	FACTOR7	FACTOR8	FACTOR9	FACTOR10
B91031	0.37646	0.12271	-0.16989	-0.05426	-0.09256
B91112	0.01489	-0.06811	-0.05374	-0.02202	-0.00247
B91222	0.24853	0.11908	0.21672	0.07664	0.06486
B91012	-0.01033	0.25672	0.13650	0.13228	0.23375
B91122	0.28874	0.14733	0.24373	0.06369	0.09375
B91082	-0.00649	-0.03807	-0.10070	-0.04437	0.01003
B91042	-0.00227	-0.06611	0.00760	-0.07387	-0.04366
B91062	-0.04122	-0.03440	-0.04886	0.02245	-0.01440
A91042	-0.04539	0.14364	0.11184	-0.04997	0.14053
A91012	-0.00214	0.00409	-0.07678	0.03302	0.00772
B91132	-0.14245	-0.10459	-0.05549	0.02474	-0.11562
A91142	0.08794	-0.00551	0.02563	0.04051	0.18241
B91102	0.01131	0.03257	0.11385	0.05607	0.09345
A91143	0.28432	-0.00587	0.03066	-0.00496	0.02351
B91072	0.19293	-0.02452	-0.13681	0.00963	-0.00557
A91122	-0.12115	-0.10628	0.04195	0.02790	-0.13309
A91103	0.08351	-0.04037	0.12989	-0.01388	-0.06548

Rotated Factor Pattern

	FACTOR6	FACTOR7	FACTOR8	FACTOR9	FACTOR10
B91111	-0.02942	-0.01325	-0.06955	0.03395	-0.03398
A91101	0.07855	-0.05437	0.13416	-0.00284	-0.08229
B91113	-0.02607	-0.03105	-0.08107	0.02638	-0.03415
A91102	0.02650	0.04163	-0.00343	-0.03292	0.04790
A91083	-0.00297	0.02345	0.07340	-0.01423	0.01580
A91081	-0.03658	-0.03361	-0.00911	-0.02045	0.00923
A91071	-0.03357	-0.04974	-0.11543	0.07531	-0.03137
A91073	0.24130	-0.07321	-0.16354	0.06963	-0.17082
A91082	0.05049	0.09123	0.15111	0.00476	0.01537
B91033	**0.85788**	0.01427	0.03184	-0.03822	-0.07561
B91032	**0.81859**	-0.04565	0.13302	-0.01257	-0.03703
B91091	0.30465	-0.03029	0.19347	0.03047	0.08910
A91061	0.16972	0.14907	-0.00782	0.06709	0.06759
A91113	0.09911	**0.74546**	-0.03830	0.13652	0.14925
A91111	0.13974	**0.68152**	-0.02016	0.13054	0.16867
B91023	-0.09871	**0.57046**	0.05872	-0.24478	-0.35357
B91021	-0.11922	**0.40007**	0.06209	-0.13954	-0.20406

	FACTOR6	FACTOR7	FACTOR8	FACTOR9	FACTOR10
B91022	-0.02616	0.39499	0.02289	-0.19639	-0.28090
A91112	-0.03999	0.33345	-0.04373	0.05227	0.01526
A91052	0.08230	0.23035	-0.09358	0.01369	0.19495
A91091	0.06825	0.15570	0.07166	0.10905	-0.01141
B91101	0.05055	-0.13502	**0.58021**	0.00216	-0.01558
B91103	0.04777	-0.10199	**0.57141**	0.03241	0.03596
A91153	-0.07666	0.03339	0.02402	**0.78233**	-0.17763
A91151	-0.09503	0.03830	0.07072	**0.72772**	-0.17863
A91093	0.15816	0.01678	0.24859	**0.47412**	0.04422
A91092	0.14567	-0.03789	0.24009	**0.46642**	0.05294
A91152	0.02121	-0.00067	-0.07919	0.23454	-0.02809
A91023	-0.05470	-0.00955	0.04122	-0.14378	**0.73547**
A91022	-0.07819	0.00317	0.03218	-0.12150	**0.61739**
A91021	0.01095	-0.01712	0.02450	-0.07542	0.39703

Variables with High Loadings on Ten Factors
Varimax Rotation

Factor (Tentative Names)	Finance Variable	Un-rest	Rest	Tot	Remarks
F1 General Financial	FTE	N/A	N/A	N/A	No. of Full Tm St.
Picture	REVENUES				
	Tuition and Fees	X		X	
	Gov App - State	X		X	Unrestricted Rev
	Local	X		X	& Exp=Hi %
	Gov Gr & Con--Federal		X	X	
	State		X		
	Aux Enterprises	X		X	No end.,sales,serv
	Other Sources	X		X	
	Total Curr Funds Rev	X	X	X	
	EXPENDITURES				
	Instruction	X		X	No Research
	Academic Support	X	X	X	
	Student Services	X	X	X	
	Institutional Support	X		X	
	Op & Maint of Plant	X	X	X	
	Scholar. & Fellowships		X	X	
	Total E&G Exp & Trans	X	X	X	
	Auxiliary Enterprises	X		X	
	Tot Cur Fnds Exp & Tr	X	X	X	
F2 Restrictive Basic	Rev: Tuition & Fees		X		
Financial Activities	State Approp		X		
	Tot Curr Funds Rev		X		
	Exp: Instruction		X		
	Academic Support		X		Restr Rev & Exp
	Student Services		X		= low %
	Op/Maint of Plant		X		
	Tot E&G Exp/Trans		X		
	Tot CF Exp/Trans		X		
F3 Limited Specific	Rev: Local Approp	X		X	Mostly
Financial Activities	Other Sources		X	X	Restricted
	Exp: Institutional Supp		X		
	Mandatory Trans		X		

Continued ...

Variables with High Loadings on Ten Factors, Cont'd

F4 Negligible Finance	Rev: Endowment	X		X	
	Exp: Nonmand Transf	X		X	
F5 State/Local Grants & Contracts	Rev:State Grnts & Con -	X		X	
	Local Grnts & Con	X	X	X	
F6 Public Serv Expend	Exp: Public Service		X	X	
F7 Sales/Serv of Ed Act	Rev:Sales/Serv of Ed Act	X		X	
F8 Unresticted Mandatory Transfers	Exp:Mand Transf	X		X	
F9 Nonpredictive Revenues	Rev: Priv G,Gr & Con -		X	X	Rev Only
	Ind Operations	X		X	
F10 Federal Approp	Rev: Federal Appropr		X	X	

F I N - 1

E & G Revenues per FTE Student

FICE Code	Institution	State and Local Approp.	Tuition & Fees	Endowment Income	Gvt. Grants & Contracts	Priv. Gifts Grants and & Contracts	Other E & G Revenue	Total E & G Revenue
003425		$8,973 131.0	$3,711 142.7	$41 55.5	$1,357 46.6	$1,331 171.8	$1,967 168.3	$17,380 120.9
002423		$7,578 110.7	$2,300 88.4	$19 25.2	$2,716 93.3	$804 103.8	$2,263 193.5	$15,679 109.1
002657		$5,921 86.5	$1,473 56.6	$142 193.4	$5,344 183.6	$697 90.0	$1,538 131.5	$15,115 105.1
002835		$7,230 105.6	$1,836 70.6	$0 .2	$2,750 94.5	$924 119.2	$416 35.6	$13,156 91.5
002836		$7,386 107.9	$1,798 69.1	$0 .0	$1,251 43.0	$712 91.9	$164 14.0	$11,311 78.7
001321		$9,746 142.3	$2,769 106.5	$0 .0	$2,512 86.3	$509 65.7	$545 46.6	$16,082 111.9
002053		$6,333 92.5	$2,539 97.6	$95 129.3	$1,760 60.5	$598 77.2	$1,356 116.0	$12,682 88.2
002589		$3,184 46.5	$5,395 207.4	$152 207.1	$2,291 78.7	$797 102.9	$839 71.8	$12,659 88.0
003414		$5,296 77.3	$3,468 133.3	$0 .0	$3,014 103.5	$387 49.9	$553 47.3	$12,717 88.5
003932		$7,379 107.8	$1,347 51.8	$303 413.4	$1,690 58.0	$955 123.2	$2,031 173.7	$13,705 95.3
003677		$6,295 91.9	$1,973 75.9	$56 76.0	$7,337 252.0	$809 104.5	$1,189 101.7	$17,660 122.8
Group Averages		$6,847	$2,601	$73	$2,911	$775	$1,169	$14,377

* - Includes Pell Grants beginning in 1982 83.

E & G Revenues Raw Data

FICE Code	Institution	State and Local Approp.	Tuition & Fees	Endowment Income	Government* Grants & Contracts	Priv. Gifts Grants and & Contracts	Other E & G Revenue	Total E & G* Revenue	Total FTE ** Students
003425		119,272,523	49,334,918	541,951	18,037,165	17,693,679	26,148,187	231,028,423	13,293
002423		94,414,585	28,656,625	230,771	33,839,110	10,016,404	28,188,492	195,345,987	12,659
002657		69,523,390	17,299,219	1,666,981	62,752,401	8,185,667	18,053,820	177,481,478	11,742
002835		99,703,990	25,322,626	1,830	37,918,379	12,737,256	5,738,947	181,423,028	13,790
002836		75,924,705	18,485,739	0	12,858,924	7,315,748	1,684,843	116,269,959	10,279
001321		84,887,000	24,122,000	0	21,883,000	4,433,000	4,747,000	140,072,000	8,710
002053		68,367,160	27,408,769	1,024,568	19,004,198	6,458,797	14,638,444	136,901,936	10,795
002589		35,307,250	59,832,199	1,686,030	25,406,828	8,843,744	9,308,152	140,384,203	11,090
003414		67,382,191	44,118,285	0	38,346,675	4,919,629	7,031,088	161,797,868	12,723
003932		76,025,794	13,879,568	3,126,854	17,409,038	9,835,510	20,922,089	141,198,853	10,303
003677		65,459,969	20,520,943	580,072	76,302,424	8,417,790	12,368,107	183,649,305	10,399

* - Includes Pell Grants beginning in 1982-83.
** - Calculated as full-time headcount plus 1/3 part-time headcount

F I N - 1 (Modified)

E & G Revenues per FTE Student

FICE Code	Institution	Federal Approp.	State and Local Approp.	Tuition & Fees	Endowment Income	Gvt. Grants & Contracts	Priv. Gifts Grants and & Contracts	Other E & G Revenue	Total E & G Revenue
003425		$935	$8,973	$3,711	$41	$1,357	$1,331	$1,032	$17,380
		224.3	131.0	142.7	55.5	46.6	171.8	137.2	120.9
002423		$984	$7,578	$2,300	$19	$2,716	$804	$1,279	$15,679
		236.1	110.7	88.4	25.2	93.3	103.8	170.0	109.1
002657		$383	$5,921	$1,473	$142	$5,344	$697	$1,155	$15,115
		91.9	86.5	56.6	193.4	183.6	90.0	153.5	105.1
002835		$0	$7,230	$1,836	$0	$2,750	$924	$416	$13,156
		.0	105.6	70.6	.2	94.5	119.2	55.3	91.5
002836		$0	$7,386	$1,798	$0	$1,251	$712	$164	$11,311
		.0	107.9	69.1	.0	43.0	91.9	21.8	78.7
001321		$0	$9,746	$2,769	$0	$2,512	$509	$545	$16,082
		.0	142.3	106.5	.0	86.3	65.7	72.4	111.9
002053		$341	$6,333	$2,539	$95	$1,760	$598	$1,015	$12,682
		81.8	92.5	97.6	129.3	60.5	77.2	134.9	88.2
002589		$4	$3,184	$5,395	$152	$2,291	$797	$835	$12,659
		1.1	46.5	207.4	207.1	78.7	102.9	111.0	88.0
003414		$0	$5,296	$3,468	$0	$3,014	$387	$553	$12,717
		.0	77.3	133.3	.0	103.5	49.9	73.5	88.5
003932		$1,563	$7,379	$1,347	$303	$1,690	$955	$468	$13,705
		374.9	107.8	51.8	413.4	58.0	123.2	62.2	95.3
003677		$375	$6,295	$1,973	$56	$7,337	$809	$814	$17,660
		90.0	91.9	75.9	76.0	252.0	104.5	108.2	122.8
	Group Averages	$417	$6,847	$2,601	$73	$2,911	$775	$752	$14,377

* Includes Pell Grants beginning in 1982-83.

F I N - 1 (Modified)

E & G Revenues per FTE Student

FICE Code	Institution	Federal Approp.	State and Local Approp.	Tuition & Fees	Endowment Income	Gvt. Grants & Contracts	Priv. Gifts Grants and & Contracts	Other E & G Revenue	Total E & G Revenue
003425		$935 224.3	$8,973 131.0	$3,711 142.7	$41 55.5	$1,357 46.6	$1,331 171.8	$1,032 137.2	$17,380 120.9
002423		$984 236.1	$7,578 110.7	$2,300 88.4	$19 25.2	$2,716 93.3	$804 103.8	$1,279 170.0	$15,679 109.1
002657		$383 91.9	$5,921 86.5	$1,473 56.6	$142 193.4	$5,344 183.6	$697 90.0	$1,155 153.5	$15,115 105.1
002835		$0 .0	$7,230 105.6	$1,836 70.6	$0 .2	$2,750 94.5	$924 119.2	$416 55.3	$13,156 91.5
002836		$0 .0	$7,386 107.9	$1,798 69.1	$0 .0	$1,251 43.0	$712 91.9	$164 21.8	$11,311 78.7
001321		$0 .0	$9,746 142.3	$2,769 106.5	$0 .0	$2,512 86.3	$509 65.7	$545 72.4	$16,082 111.9
002053		$341 81.8	$6,333 92.5	$2,539 97.6	$95 129.3	$1,760 60.5	$598 77.2	$1,015 134.9	$12,682 88.2
002589		$4 1.1	$3,184 46.5	$5,395 207.4	$152 207.1	$2,291 78.7	$797 102.9	$835 111.0	$12,659 88.0
003414		$0 .0	$5,296 77.3	$3,468 133.3	$0 .0	$3,014 103.5	$387 49.9	$553 73.5	$12,717 88.5
003932		$1,563 374.9	$7,379 107.8	$1,347 51.8	$303 413.4	$1,690 58.0	$955 123.2	$468 62.2	$13,705 95.3
003677		$375 90.0	$6,295 91.9	$1,973 75.9	$56 76.0	$7,337 252.0	$809 104.5	$814 108.2	$17,660 122.8
	Group Averages	$417	$6,847	$2,601	$73	$2,911	$775	$752	$14,377

* Includes Pell Grants beginning in 1982-83.

E & G Revenues Raw Data

FICE Code	Institution	Federal Approp.	State and Local Approp.	Tuition & Fees	Endowment Income	Government* Grants & Contracts	Priv. Gifts Grants and Contracts	Other E & G Revenue	Total E & G* Revenue	Total FTE ** Students
003425		12,430,084	119,272,523	49,334,918	541,951	18,037,165	17,693,679	13,718,103	231,028,423	13,293
002423		12,259,328	94,414,585	28,656,625	230,771	33,839,110	10,016,404	15,929,164	195,345,987	12,459
002657		4,496,721	69,523,390	17,299,219	1,666,981	62,752,401	8,185,667	13,557,099	177,481,478	11,742
002835		0	99,703,990	25,322,626	1,830	37,918,379	12,737,256	5,738,947	181,423,028	13,790
002836		0	75,924,705	18,485,739	0	12,858,924	7,315,748	1,684,843	116,269,959	10,279
001321		0	84,887,000	24,122,000	0	21,883,000	4,433,000	4,747,000	140,072,000	8,710
002053		3,679,715	68,367,160	27,408,769	1,024,568	19,004,198	6,458,797	10,958,729	136,901,936	10,795
002589		49,298	35,307,250	59,832,199	1,686,030	25,406,828	8,843,744	9,258,854	140,384,203	11,090
003414		0	67,382,191	44,118,285	0	38,346,675	4,919,629	7,031,088	161,797,868	12,723
003932		16,099,736	76,025,794	13,879,568	3,126,854	17,409,038	9,835,510	4,822,353	141,198,853	10,303
003677		3,902,624	65,459,969	20,520,943	580,072	76,302,424	8,417,790	8,465,483	183,649,305	10,399

* - Includes Pell Grants beginning in 1982-83.
** - Calculated as full-time headcount plus 1/3 part-time headcount

F I N - 2

E & G Expenditures per FTE Student

Part 1 of 2

FICE Code	Institution	Instruction	Research	Public Service	Academic Support	Student Services	Institutional Support	Plant Op. & Maint
003425		$5,256 113.1	$3,736 118.0	$3,368 291.6	$1,313 115.8	$519 77.1	$1,124 105.2	$1,247 119.2
002423		$3,458 74.4	$4,634 146.4	$2,722 235.6	$899 79.3	$388 57.6	$954 89.3	$944 90.3
002657		$3,378 72.7	$6,219 196.5	$1,409 122.0	$671 59.1	$586 87.0	$714 66.8	$838 80.1
002835		$5,789 124.6	$1,526 48.2	$432 37.4	$1,155 101.9	$461 68.4	$1,391 130.1	$956 91.4
002836		$4,799 103.2	$603 19.0	$224 19.4	$1,154 101.8	$522 77.4	$1,240 116.1	$1,175 112.3
001321		$6,448 138.7	$2,424 76.6	$147 12.7	$1,481 130.6	$1,597 237.0	$1,541 144.2	$1,298 124.1
002053		$4,484 96.5	$1,880 59.4	$1,347 116.6	$951 83.9	$1,024 152.0	$733 68.6	$1,010 96.6
002589		$3,965 85.3	$2,516 79.5	$500 43.3	$1,173 103.5	$631 93.7	$1,108 103.7	$778 74.3
003414		$4,321 93.0	$2,607 82.4	$353 30.6	$1,562 137.8	$593 88.0	$1,145 107.1	$1,270 121.4
003932		$4,828 103.9	$2,104 66.5	$756 65.5	$1,090 96.1	$668 99.1	$824 77.1	$1,106 105.7
003677		$4,400 94.7	$6,570 207.6	$1,448 125.4	$1,024 90.3	$423 62.8	$982 91.9	$885 84.6
	Group Averages	$4,648	$3,165	$1,155	$1,134	$674	$1,069	$1,046

* - Includes Pell Grants beginning in 1982-83.

F I N - 2

E & G Expenditures per FTE Student

Part 2 of 2

FICE Code	Institution	Scholarships and Fellowships*	Mandatory Transfers	Total E & G*
003425		$626 66.1	$51 25.5	$17,239 120.7
002423		$895 94.4	$193 96.1	$15,660 109.6
002657		$928 97.9	$163 81.3	$14,973 104.8
002835		$850 89.7	$569 283.2	$13,148 92.1
002836		$881 93.0	$761 378.8	$11,391 79.8
001321		$973 102.7	$58 28.8	$16,062 112.5
002053		$1,072 113.1	$0 .0	$12,667 88.7
002589		$1,125 118.7	$27 13.2	$12,680 88.8
003414		$738 77.9	$5 2.4	$12,595 88.2
003932		$1,144 120.8	$331 164.8	$13,350 93.5
003677		$1,191 125.7	$52 25.8	$17,339 121.4
	Group Averages	$948	$201	$14,282

* - Includes Pell Grants beginning in 1982-83.

E & G Expenditures Raw Data
Part 1 of 2

FICE Code	Institution	Instruction	Research	Public Service	Academic Support	Student Services	Institutional Support
003425		69,866,174	49,656,260	44,766,888	17,448,774	6,901,998	14,941,976
002423		43,086,020	57,735,154	33,913,230	11,195,113	4,839,438	11,889,309
002657		39,660,750	73,021,546	16,544,245	7,873,787	6,883,515	8,381,684
002835		79,837,031	21,046,395	5,950,847	15,925,890	6,356,827	19,174,958
002836		49,324,059	6,197,662	2,299,911	11,864,169	5,362,128	12,750,067
001321		56,162,000	21,113,000	1,276,000	12,897,000	13,910,000	13,425,000
002053		48,408,871	20,294,114	14,544,672	10,269,910	11,054,754	7,914,159
002589		43,971,512	27,906,854	5,550,143	13,009,076	6,998,899	12,287,427
003414		54,981,516	33,171,044	4,491,851	19,872,430	7,543,167	14,569,966
003932		49,737,834	21,674,669	7,792,663	11,226,031	6,880,620	8,492,498
003677		45,759,261	68,320,741	15,062,597	10,649,355	4,397,126	10,212,721

E & G Expenditures Raw Data
Part 2 of 2

FICE Code	Institution	Plant Op. & Maint.	Scholarships and Fellowships*	Mandatory Transfers	Total E & G*	Total FTE** Students
003425		16,573,750	8,322,474	681,673	229,159,967	13,293
002423		11,763,916	11,146,233	2,405,208	195,111,912	12,459
002657		9,843,945	10,894,872	1,917,035	175,816,160	11,742
002835		13,184,338	11,719,315	7,844,644	181,308,260	13,790
002836		12,078,990	9,055,421	7,821,858	117,087,893	10,279
001321		11,307,000	8,472,000	503,853	139,899,794	8,710
002053		10,904,810	11,570,815	0	136,742,876	10,795
002589		8,624,767	12,476,919	294,070	140,620,318	11,090
003414		16,160,834	9,393,715	62,104	160,246,627	12,723
003932		11,390,544	11,789,463	3,410,306	137,540,699	10,303
003677		9,199,135	12,389,773	539,866	180,304,154	10,399

* - Includes Pell Grants beginning in 1982-83.
** - Calculated as full-time headcount plus 1/3 part-time headcount.

Tuition and Fees as a Percent of Current Funds Revenues
Fiscal 1978 to Fiscal 1990

Institution	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990
	8	8	9	11	12	14	15	14	14	15	17		18
	9	8	9	9	10	11	11	11	11	12	12	12	13
	9	8	8	7	7	7	7	8	8	9	10	9	8
	15	15	12	16	15	13	13	14	13	13	12	12	12
	16	15	15	16	15	14	14	16	15	15	14	14	14
	13	13	14	12	14	16	16	14	13	13	13	14	14
	18	19	18	18	19	19	20	18	17	25	27	16	17
	28	28	28	29	31	31	31	32	31	32	32	31	34
	17	17	17	17	19	19	20	20	20	21	22	23	23
	8	8	8	7	10	9	6	7	7	7	7	7	8
	11	11	11	11	11	11	11	10	10	11	10	10	10

NH STATE U MAIN CAMPUS

Revenues per FTE Student
Fiscal 1978 to Fiscal 1990

Year	State Approp.	Local Approp.	Tuition and Fees	Endowment Income	Government Grants & Contracts	Private Gifts, Grants & Contracts	Other Revenue	Total Revenue	FTE Enrollment
1978	2,645	78	591	49	1,730	117	784	5,994	10,097
1979	3,010	76	657	58	1,787	264	977	6,829	10,430
1980	3,216	85	704	64	2,422	454	992	7,938	10,651
1981	3,520	83	754	198	3,432	418	976	9,383	11,138
1982	4,035	96	829	141	2,986	559	1,104	9,749	11,111
1983	4,378	117	883	118	4,082	588	1,194	11,359	11,173
1984	4,273	118	897	99	3,689	493	1,105	10,673	11,504
1985	4,937	109	1,027	114	3,527	663	1,242	11,618	11,271
1986	5,167	136	1,131	121	3,419	973	1,734	12,682	11,282
1987	4,981	107	1,259	114	3,929	1,115	1,273	12,777	11,538
1988	4,933	113	1,406	117	4,276	779	1,167	12,791	11,878
1989	5,231	123	1,400	158	4,493	640	1,283	13,328	11,919
1990	5,787	134	1,473	142	5,344	697	1,538	15,115	11,742
Percent Change	118.8%	72.2%	149.1%	192.3%	208.9%	493.8%	96.1%	152.2%	16.3%

REFERENCE INSTITUTIONS
NH STATE U MAIN CAMPUS

Revenues per FTE Student
Fiscal 1978 to Fiscal 1990

Year	State Approp.	Local Approp.	Tuition and Fees	Endowment Income	Government Grants & Contracts	Private Gifts, Grants & Contracts	Other Revenue	Total Revenue	FTE Enrollment
1978	3,202	29	1,037	23	1,081	135	531	6,038	9,815
1979	3,530	29	1,124	30	1,213	185	621	6,733	9,850
1980	3,805	33	1,210	35	1,465	236	692	7,476	10,045
1981	3,960	32	1,360	55	1,602	282	706	7,998	10,406
1982	4,202	32	1,522	50	1,551	329	758	8,444	10,550
1983	4,360	35	1,644	50	1,873	682	789	9,110	10,558
1984	4,638	37	1,802	59	1,915	387	829	9,667	10,608
1985	5,313	38	1,979	63	1,956	484	873	10,706	10,558
1986	5,728	43	2,085	68	2,066	656	944	11,590	10,563
1987	5,488	37	2,200	40	2,131	602	910	11,407	10,762
1988	5,739	37	2,397	46	2,185	592	956	11,949	11,102
1989	5,567	38	2,150	42	2,219	501	846	11,363	11,442
1990	6,777	39	2,809	49	2,575	769	1,102	14,118	11,653
Percent Change	111.6%	34.2%	170.9%	109.5%	138.3%	470.5%	107.4%	133.8%	18.7%

NH STATE U MAIN CAMPUS

Expenditures per FTE Student
Fiscal 1978 to Fiscal 1990

Year	Instruction	Research	Public Service	Academic Support	Student Services	Instit. Support	Op & Maint of Plant	S & F * Unrest.	S & F * Rest.**	Total E & G	# of FTES
1978	1,595	2,045	641	359	230	316	370	26	76	5,739	10,097
1979	1,723	2,504	684	411	274	336	444	27	71	6,540	10,430
1980	1,829	3,208	861	441	299	403	464	26	107	7,697	10,651
1981	1,958	3,746	1,311	477	333	416	526	31	98	8,952	11,138
1982	2,250	3,727	1,182	531	381	452	590	31	109	9,312	11,111
1983	2,464	4,260	1,723	559	354	455	686	35	410	11,008	11,173
1984	2,451	3,985	1,478	548	346	453	688	35	445	10,494	11,504
1985	2,676	4,227	1,360	575	421	450	726	41	500	11,061	11,271
1986	2,944	4,941	1,397	584	452	491	742	51	582	12,190	11,282
1987	2,915	5,091	1,315	566	419	471	690	67	614	12,570	11,538
1988	2,979	5,260	1,334	568	497	554	747	79	622	12,825	11,878
1989	3,203	5,293	1,349	606	525	606	818	91	730	13,390	11,919
1990	3,378	6,219	1,409	671	586	714	838	96	832	14,973	11,742
Percent Change	111.7%	204.1%	119.9%	86.6%	154.6%	125.7%	126.8%	265.5%	1,000.4%	160.9%	16.3%

REFERENCE INSTITUTIONS
NH STATE U MAIN CAMPUS

Expenditures per FTE Student
Fiscal 1978 to Fiscal 1990

Year	Instruction	Research	Public Service	Academic Support	Student Services	Instit. Support	Op & Maint of Plant	S & F * Unrest.	S & F * Rest.**	Total E & G	# of FTES
1978	2,046	1,039	484	463	282	643	512	119	184	6,076	9,723
1979	2,175	1,154	548	515	310	678	551	125	188	6,617	9,753
1980	2,344	1,349	589	571	329	717	601	83	277	7,185	9,932
1981	2,513	1,431	589	612	352	750	653	103	306	7,715	10,303
1982	2,742	1,506	625	630	385	797	704	118	272	8,048	10,435
1983	2,966	1,549	659	642	418	768	750	163	527	8,776	10,397
1984	3,187	1,618	705	735	441	815	786	170	556	9,300	10,373
1985	3,560	1,741	778	776	395	964	887	173	504	10,050	10,308
1986	3,878	1,823	770	864	537	999	925	272	480	10,816	10,310
1987	4,121	1,756	681	870	613	965	953	275	555	11,235	10,520
1988	4,207	2,030	726	1,014	666	1,032	1,028	246	542	11,844	10,809
1989	4,510	2,123	794	1,120	713	1,116	1,068	326	580	12,772	11,109
1990	4,706	2,348	852	1,190	702	1,152	1,052	349	575	13,414	11,407
Percent Change	130.0%	126.0%	76.0%	156.8%	149.0%	79.3%	105.5%	193.9%	212.8%	120.8%	17.3%

* Scholarships and Fellowships
** Scholarships and Fellowships from restricted funds include Pell Grants beginning in 1983

TOTAL CURRENT FUND REVENUES
UNRESTRICTED VERSUS RESTRICTED

	Current Funds Total	Total Unrestricted	Percent Unrestricted	Total Restricted	Percent Restricted
003425	274,244,565	239,897,320	87.5	34,347,245	12.5
002423	223,042,167	183,233,605	82.2	39,808,562	17.8
002657	205,301,389	126,347,353	61.5	78,954,036	38.5
002835	206,774,901	163,347,395	79.0	43,427,506	21.0
002836	132,855,559	116,638,877	87.8	16,216,682	12.2
001321	167,770,000	144,004,000	85.8	23,766,000	14.2
002053	164,396,537	136,109,241	82.8	28,287,296	17.2
002589	178,352,148	147,042,216	82.4	31,309,932	17.6
003414	190,264,055	122,926,020	64.6	67,338,035	35.4
003932	167,965,410	141,767,455	84.4	26,197,955	15.6
003677	200,999,385	96,019,771	47.8	104,979,614	52.2

Data Source: NCHEMS NCES Finance and Faculty Dataset, 1989-90

EXPENDITURES AS A PERCENT OF
TOTAL E & G EXPENDITURES AND TRANSFERS

	Instruction	Research	Public Service	Academic Support	Student Services	Inst. Support	Op/Maint of Plant	Scholar/ Fellow.	Mand. Transfer	Non Mand. Transfer	Faculty Salaries
003425	30.5	21.7	19.5	7.6	3.0	6.5	7.2	3.6	0.3	0.0	13.2
002423	22.1	29.6	17.4	5.7	2.5	6.1	6.0	5.7	1.2	0.0	17.1
002657	22.6	41.5	9.4	4.5	3.9	4.8	5.6	6.2	1.1	0.0	12.6
002835	44.0	11.6	3.3	8.8	3.5	10.6	7.3	6.5	4.3	0.0	18.6
002836	42.1	5.3	2.0	10.1	4.6	10.9	10.3	7.7	6.7	0.0	21.6
001321	40.1	15.1	0.9	9.2	9.9	9.6	8.1	6.1	0.4	0.0	14.5
002053	35.4	14.8	10.6	7.5	8.1	5.8	8.0	8.5	0.0	0.0	15.3
002589	31.3	19.8	3.9	9.3	5.0	8.7	6.1	8.9	0.2	0.0	17.6
003414	34.3	20.7	2.8	12.4	4.7	9.1	10.1	5.9	0.0	0.0	20.5
003932	36.2	15.8	5.7	8.2	5.0	6.2	8.3	8.6	2.5	0.0	17.9
003677	25.4	37.9	8.4	5.9	2.4	5.7	5.1	6.9	0.3	0.0	9.9

Data Source: NCHEMS NCES Finance and Faculty Dataset, 1989-90
Note: Row Percents will not equal 100%

EXPENDITURES AS A PERCENT OF
TOTAL E & G EXPENDITURES AND TRANSFERS
BACKUP DATA - PART 1 OF 2

	Instruction	Research	Public Service	Academic Support	Student Services	Institutional Support
003425	69,866,174	49,656,260	44,766,888	17,448,774	6,901,998	14,941,976
002423	43,086,020	57,735,154	33,913,230	11,195,113	4,839,438	11,889,309
002657	39,660,750	73,021,546	16,544,245	7,873,787	6,883,515	8,381,684
002835	79,837,031	21,046,395	5,950,847	15,925,890	6,356,827	19,174,958
002836	49,324,059	6,197,662	2,299,911	11,864,169	5,362,128	12,750,067
001321	56,162,000	21,113,000	1,276,000	12,897,000	13,910,000	13,425,000
002053	48,408,871	20,294,114	14,544,672	10,269,910	11,054,754	7,914,159
002589	43,971,512	27,906,854	5,550,143	13,009,076	6,998,899	12,287,427
003414	54,981,516	33,171,044	4,491,851	19,872,430	7,543,167	14,569,966
003932	49,737,834	21,674,669	7,792,663	11,226,031	6,880,620	8,492,498
003677	45,759,261	68,320,741	15,062,597	10,649,355	4,397,126	10,212,721

Data Source: NCHEMS NCES Finance and Faculty Dataset, 1989-90

EXPENDITURES AS A PERCENT OF
TOTAL E & G EXPENDITURES AND TRANSFERS
BACKUP DATA - PART 2 OF 2

	Op/Maint of Plant	Scholar/ Fellow.	Mand. Transfer	Non Mand. Transfer	Faculty Salaries	Total E&G Exp and Trans.
003425	16,573,750	8,322,474	681,673	0	30,323,304	229,159,967
002423	11,763,916	11,146,233	2,405,208	0	33,269,691	195,111,912
002657	9,843,945	10,894,872	1,917,035	0	22,097,896	175,814,160
002835	13,184,338	11,719,315	7,844,644	0	33,636,502	181,308,260
002836	12,078,990	9,055,421	7,821,858	0	25,267,992	117,087,893
001321	11,307,000	8,472,000	503,853	0	20,296,804	139,899,794
002053	10,904,810	11,570,815	0	0	20,948,670	136,742,876
002589	8,624,767	12,476,919	294,070	0	24,693,340	140,620,318
003414	16,160,834	9,393,715	62,104	0	32,797,393	160,246,627
003932	11,390,544	11,789,463	3,410,306	0	24,587,208	137,540,699
003677	9,199,135	12,389,773	539,866	0	17,878,243	180,304,154

Data Source: NCHEMS NCES Finance and Faculty Dataset, 1989-90